

# Compelling Case for WMATA

## Executive Summary

The Washington Metropolitan Transit Authority (WMATA) benefits the \$290 billion Washington regional economy in a number of tangible and intangible ways. Improving the local tax base, stimulating high-value, transit-oriented development, improving regional productivity, and the overall quality of life. A brief summary of these benefits is provided below.

### Impacts on State and Local Governments:

- WMATA services expand the state and local tax base with recurring and non-recurring taxes
- Reduce the need for highway construction
- WMATA services require funding from state and local operating and capital budgets

### Impacts on the Business Community

- WMATA, particularly Metrorail, promotes high-value, transit-oriented development. Attracting jobs and housing to Metro station areas
- Metrorail and Metrobus improve accessibility to jobs
- WMATA substantially reduces congestion, saving businesses and employees over \$1.2 billion per year

### Impacts on the Federal Government

- WMATA provides an affordable commuting for federal workers and attracting federal facilities to station areas
- Metrorail and Metrobus are critical links in the national capital region's security network and provide a model for the country on new transit security initiatives

### Impacts on the Citizens and Visitors to the Region

- WMATA reduces congestion on the region's highways saving residents, Metro and non-Metro riders, approximately 35 hours in travel time per year and approximately 75 million gallons of gas per year.
- Metrorail and Metrobus improve regional air quality; reducing smog and ozone, volatile organic compounds (VOCs) and nitrogen oxides (NOx) Improves the health of the region by reducing sprawl by promoting transit use and transit-oriented development.

## **Background**

The Washington Metropolitan Area Transit Authority's services are an integral part of the region's transportation network. With a replacement cost of approximately \$24 billion it is one of the largest single infrastructure projects in the region. It is also one of the few assets that truly bind the Washington region together. Over the past thirty years, WMATA's impact on the region has continued to grow. Over 1.1 million trips per day are made on the Metrobus and Metrorail systems, saving time for people on its vehicles, reducing congestion on the region's roadways, and improving air quality. Like every other transit property in the world WMATA requires public support to close the gap between passenger revenues and costs. However, it substantially expands the tax base of its sponsoring jurisdictions by stimulating high-value, property development and job growth around transit stations. Finally, WMATA is a critical link in the region's security system, offering a safe, fast means of evacuating the core. The benefits that WMATA provides transcend the users of its service. Even those never setting foot on a WMATA vehicle benefit from its services.

## **Beneficiary: State and Local Governments**

WMATA impacts state and local governments in two primary ways. First, it expands the tax base by increasing the property value of land adjacent to Metrorail stations and sales and income taxes in funding jurisdictions. Second, it places a burden on state and local tax dollars, which must be used to pay the operating and capital costs of WMATA services.

### Tax base generated by WMATA

Tax revenues to jurisdictions served by WMATA can be classified as both recurring and nonrecurring. Non-recurring sources of tax revenue include:

- Metrorail construction activities
- Permits for new development in station areas
- Sales of housing units.

Recurring tax revenues include:

- Sales at Metrorail station area office, retail and hotel developments
- Property taxes of residents and business locating near Metrorail station.
- Incomes earned at jobs located near Metrorail stations
- Income tax generated by Metro operations and maintenance

A 1994 study completed by KPMG Peat Marwick for the Northern Virginia Transportation Commission concluded that the tax revenues for the Commonwealth of Virginia linked to the Metrorail system yield an annual return

on investment of 12.4% for the Commonwealth. It estimated that between 1977 when the first station opened in Virginia and 2010 in Virginia alone, Metrorail will generate an estimated \$2.1 billion in tax revenues and 91,000 permanent jobs. The Urban Land Institute estimated that in Arlington County, development in two Metrorail corridors is concentrated on six percent of the land in the county but produces almost half of the county's tax revenue.

## **Beneficiary: Business Community**

WMATA also has a strong impact on the business community. The Metrorail and Metrobus system stimulates substantial property development around the region; eliminates congestion, thereby lowering the cost of doing business; adds new jobs through construction and the provision of transit service; encourage transit oriented land-use; and improve homeland security.

### Property Development

The presence of a Metro station encourages the highest and best use of land, a key factor in the development of the regional economy. Region-wide, Metro has already generated more than \$15 billion in increased value at station sites, and the Urban Land Institute estimates the Metrorail system will have contributed \$25 billion of commercial, office and retail growth by 2010. Between 1980 and 1990, 40% of the region's new retail and office space was built within walking distance of a Metrorail station. Additionally, average office rents near transit stations rose with ridership and joint development projects, adding more than three dollars per gross square foot to annual office rents. The National Association of Realtors notes that more and more Americans are choosing to live in locations that put them within easy walking distance of transit. Demographers estimate that as much as 30% of the demand for housing is for denser, walkable, mixed-use communities .

Investment in transit also promotes vital economic growth and development by revitalizing neglected neighborhoods and serving as a catalyst for new business partnerships between public agencies and private businesses. The New York Avenue in-fill station on Metrorail's Red Line is being developed through an equal partnership between the federal and DC governments and local businesses. The station will trigger significant new mixed-use development, revitalizing an underdeveloped and underserved part of DC.

### Regional Economy

The local economy in which WAMTA operates has a gross regional product of \$290 billion, fourth highest in the United States.

Public transportation contributes to the region's economy in two fundamental ways: direct dollar investment, multiplied throughout the economy; and improved

transportation options, which create economic benefits for individuals, households, businesses and governments. Dollars invested in public transportation flow through all sectors of the economy and provide an economic stimulus far exceeding the original investment – as much as six dollars for every dollar invested.

In addition to directly stimulating the economy, investment in public transportation enhances mobility for businesses and households thereby providing increased mobility and access to opportunities. In fact, over the next 30 years accessibility to jobs by transit will increase throughout the region, while the number of jobs accessible by auto will decrease. Finally, businesses and employees benefit from the reduced time and cost of congestion that transit provides. According to the 2004 Texas Transportation Institute Urban Mobility Study the Washington region cost of congestion is valued at \$2.3 billion. However, \$1.2 billion per year in congestion costs are cut due to public transportation. In this region, the public transportation the cost in this region due to congestion would be \$3.5 billion instead of the \$2.3 billion.

## **Beneficiary: Federal Government**

### Facility Location

WMATA provides an important mobility service to federal employees. So much so that proximity to a Metro station now ranks high in determining the location of many institutions. The federal government has required that agencies looking to relocate must try to find new offices near Metro stations. Metro was built to serve many existing federal workplaces – the Capitol, the Pentagon, the National Institutes of Health, the Census Bureau in Suitland, and the cluster of departments at the Federal Triangle, L'Enfant Plaza, and the Southwest Federal Center. More recently other federal facilities have relocated to near Metro stations, including the US Patent and Trademark Office near the King Street station, the Internal Revenue Service at the New Carrollton station and the National Oceanic and Atmospheric Administration near the Silver Spring station. As a result, 47% of Metro's peak period riders are federal employees. This suggests that the federal government is the single largest beneficiary of WMATA.

### Homeland Security

Metro provides essential capacity to the region's transportation network helping to ensure safe and secure travel in times of extraordinary need. Public transportation has shown its ability to serve in times of emergency, playing a critical role in maintaining basic access and mobility. Of the 83 Metrorail stations, 35 serve federal facilities; Metro is a key means of mobility for federal workers during emergencies. On September 11, 2001, WMATA moved hundreds of thousands of federal workers and other commuters safely from the core and provided buses to deploy police and to serve as shelters for rescue workers.

The *National Strategy for Homeland Security*, released in July 2002 by the Bush Administration, details a comprehensive plan to enhance America's "protection and reduce our vulnerability to terrorist attacks," including several Homeland Security initiatives that relate to WMATA's role as a national security asset. The national strategy seeks to:

**Protect critical infrastructure and assets** – The Homeland Security Strategy is intent on protecting "individual targets whose destruction could create local disaster or profoundly damage our Nation's morale or confidence." Nationally transit systems have been identified as potential targets.

**Defend against catastrophic threats, including chemical, biological, radiological or nuclear contamination** – WMATA has led the world in developing a chemical sensor system for the transit environment, working in partnership with the U.S. Departments of Transportation, Energy and Justice and the National Laboratories. This trail-blazing technology being installed in underground Metrorail stations has applicability across the nation and the world in enclosed spaces where large crowds gather.

**Provide intergovernmental coordination** – The national capitol region, home of the District of Columbia, two states, 17 local jurisdictions and the federal government, must have seamless decision-making and coordination to protect the many physical and symbolic assets in our nation's capital. WMATA stands ready to act as an integral partner in protecting the federal workforce, and other people in the region, as well as the critical transportation infrastructure, federal buildings and national monuments served by Metro.

## **Beneficiary: Citizens and Visitors to the Region**

WMATA impacts the quality of life of the Washington region in a number of ways: reducing congestion and saving time, reducing pollution, and improving the health of the region.

### Congestion

During peak travel periods, 18 percent of all person-trips in WMATA's service area, and 42 percent of all peak-period trips to the region's core, are made on transit. This level of transit use, the second highest in the country, saves time for all travelers and reduces delays on region's severely congested streets and highways. In addition, individual riders save money by not driving their vehicles.

The Washington DC Metropolitan Area is one of the worst in the nation with regard to traffic congestion. According to the Texas Transportation Institute

Urban Mobility Report, which reviews the levels of congestion in America's urban areas, travel in on area highways during the peak period took 50% longer than under free flow conditions, up from 27% in 1982. Thus a trip that should take 20 minutes under free flow conditions instead takes 30 minutes.

As a result of congestion, the average Washington commuter spends 67 hours in congestion, the third worst in the nation. This has grown three-fold since the study began in 1982, when the average annual congestion was 21 hours per commuter. However, without the region's public transportation system, the average commuter would spend 102 hours each year without the region's public transportation system. That's 35 hours, or 50% more time that would be spent in traffic were it not for this region's transit services. This indicates the importance of WMATA, both for WMATA customers as well as those who live in the region but do not use the system. The increasing trends in congestion indicate an urgent need to improve the region's transportation system. One important component of any improvement strategy is to accommodate more demand on transit.

According to Paul M. Weyrich and William S. Lind in their publication *Twelve Anti-Transit Myths: A Conservative Critique*, transit, in particular rail transit, relieves congestion because it attracts choice riders, people would can and would drive if the train or the bus were not there. 65% of Metrorail riders are considered to be choice riders. Surprisingly, over 42% of bus riders are choice riders. This is especially impressive considering the fact that the Washington region is one of the wealthiest in the nation, second only to San Francisco.

### Air Quality

Nationally public transportation reduces annual emissions of the pollutants that create smog and ozone, volatile organic compounds (VOCs) and nitrogen oxides (NOx), by more than 70,000 tons and 27,000 tons respectively. Public transportation also reduces carbon monoxide (CO) emissions by nearly 745,000 tons annually and carbon dioxide (CO<sub>2</sub>) by more than 7.4 million tons per year.

The 2004 Texas Transportation Institute Urban Mobility Study indicates that in 2002, the Washington DC region wasted 204 million gallons of fuel due to traffic congestion. This makes the region the seventh most wasteful in the nation and also contributes to significant emissions of pollutants into the region's air. In fact, The Washington region is a severe non-attainment area for ozone, which is created in large part by the emissions of idling vehicles stuck in traffic. In fact, passenger cars and light trucks account for over 50% of air pollution nationwide (APTA Benefits of Public Transportation September 2002). Metro's very existence reduces harmful vehicle emissions as more than 1.2 million daily Metrobus and Metrorail trips remove 350,000 cars from the local road system every day and save more than 75 million gallons of gasoline every year.

Metro's clean-fleet program uses ultra-low-sulfur diesel fuel and exhaust after-treatment devices on its diesel buses and recently upgraded 60 old diesel engines to current emissions standards. WMATA has also purchased compressed natural gas buses and will soon be purchasing hybrid-electric buses to ensure that the system minimizes its impact on the region's air quality.

### Health Benefits

The health effects of pollution from vehicles can be severe and even life threatening, particularly to children, older adults and adults with respiratory illnesses. Air pollution claims 70,000 lives a year and the costs related to health damage from motor vehicle pollution is estimated to be between \$29 billion and \$530 billion (APTA Health report). However, for every passenger mile traveled, public transportation produces only a fraction of the harmful pollution of automobile traffic: 95% less carbon monoxide, 92% fewer volatile organic compounds and nearly half as much carbon dioxide and nitrogen oxides.

Metro also contributes to better public health by enabling transit-friendly, walkable communities that reduce reliance on motor vehicles and promote higher levels of physical activity. This benefit has recently received national attention in light of a new study by the American Journal of Health Promotion that identified a link between sprawl and obesity.